

REMARKS

Claims 3-14, 16-18, 20-22, and 24-28 have been withdrawn. Claims 1, 3, 5, 7, 9, 11-16, 22, 24, 25, and 27 have been amended to clarify the claimed invention. New Claims 29-40 have been added. Support for the amendments to the claims can be found in the specification (page 57, line 18-26, page 80 line 13-17, page 54, line 5-7), for example. Thus, no new matter had been added. Applicants respectfully request entry of the amendments and reconsideration of the present application in view of the amendments and following remarks.

Restriction Requirement

The Examiner asserts that the common technical feature in all groups is the fine metal particle. However, the common technical feature in all group is such a specific concept as "fine metal particles in the form of a dry powder" in which "a thickness of the covering layer is well-adjusted by removing excess amount of one or more compounds used to form the covering layer on the surface of the fine metal particles" or "fine metal oxide particles in the form of a dry powder" in which "a thickness of the covering layer is well-adjusted by removing excess amount of one or more compounds used to form the covering layer on the surface of the fine metal oxide particles".

At the stage of the International Preliminary Examination, the Authority for International Preliminary Examination of this case (i.e., Japanese Patent Office) has accepted the aforementioned specific concept as a special technical feature under PCT Rules 13.2 because the specific concept is by no means disclosed in the following prior art; JP 2002-334618 A, JP 2002-309303 A, JP 2002-299833 A, and JP 03-140478 A. (please see attached preliminary report) JP 2002-334618 A fails to disclose "fine metal particles in the form of a dry powder", and JP 2002-334618 A discloses only a dispersion comprising fine metal particles being dispersed in a dispersion medium, which are just fine metal particles in wet form.

Moreover, "fine metal particles in the form of a dry powder" or "fine metal oxide particles in the form of a dry powder" are explicitly recited in the preamble of the claims. Therefore the common technical feature should be "fine metal particles in the form of a dry powder" or "fine

metal oxide particles in the form of a dry powder" rather than "fine metal particles" or "fine metal oxide particles"

In view of the above fact, Applicants respectfully request reconsideration of Restriction Requirement.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 2 and 15 have been rejected under 35 U.S.C. § 103 as being unpatentable over JP 2002-334618 A. The cited reference teaches a process for formation of conductive metal film using fine metal particle dispersion, which metal film is substitutionally used for metal plating film. The fine metal particle dispersion used in the process comprises an organic solvent as a dispersion medium for fine metal particles having an average particle size selected in the range of 1 to 100 nm. The surface of the fine metal particles are coated with one or more compounds having a group containing a nitrogen atom, an oxygen atom or a sulfur atom

The Examiner referred to paragraph [0036] of the reference as disclosing that the content of these compounds is in the range of 5 to 100 part by mass based on 100 part by mass of the fine metal particle. (paragraph [0036] of the cited reference)

However, paragraph [0036] of the cited reference actually discloses the parts by mass of the entire organic solvent, and not just the compound containing a nitrogen atom, an oxygen atom or a sulfur atom. See the attached translation of Paragraph [0036]. Thus, this reference contains no description as to the content of the recited one or more compounds having a group containing a nitrogen atom, an oxygen atom or a sulfur atom, which group is used as a group capable of forming a coordinative bond with a metal element contained in the fine metal particles.

More over Claim 1, as amended herein, recites new limitations "said one or more compounds having a group containing a nitrogen atom, an oxygen atom or a sulfur atom is selected from the group consisting of diamine compounds having an alkyl substituent on one of two amino groups, hydroxyamine compounds having an O-alkyl substituent, and monoamines containing a branched alkyl group", and "a thickness of the covering layer formed with the adjusted covering amount is at least 0.5 nm or thicker, and selected in the range of 2/10 to 8/10

of the average particle size of the fine metal particles". The cited reference is silent about the specific choice of the one or more compounds having a group containing a nitrogen atom, an oxygen atom or a sulfur atom and the specific choice of the thickness of the covering layer formed with the adjusted covering amount.

Further, the fine metal particle dispersion used in the process of cited reference may further comprise a compound having reactivity to the group containing a nitrogen atom, an oxygen atom or a sulfur atom, which group is used as a group capable of forming a coordinative bond with a metal element contained in the fine metal particles in the one or more compounds having the group containing a nitrogen atom, an oxygen atom or a sulfur atom, with which compounds the fine metal particle being dispersed is coated. Therefore, the compound having reactivity to the group containing a nitrogen atom, an oxygen atom or a sulfur atom is used to accelerate removal of the one or more compounds having the group containing a nitrogen atom, an oxygen atom or a sulfur atom from the surface of the fine metal particle when the heating-up treatment is carried out.

Accordingly, the compound having reactivity to the group containing a nitrogen atom, an oxygen atom or a sulfur atom is by no means used for formation of the coating thereof on the surface of fine metal particle being dispersed in the fine metal particle dispersion

Moreover, a carboxyl group (-COOH) that is a functional group contained in carboxylic acid is a group containing two oxygen atoms therein, but is by no means considered to be a group containing one oxygen atom therein. The moiety of carboxylic acid anhydrate (i.e. -CO-O-CO-) is a moiety containing three oxygen atoms therein, but is by no means considered to be a moiety containing one oxygen atom therein. Therefore, the cited reference fails to provide any suggestion as to such a fine metal particle dispersion comprising fine metal particles that are covered with one or more carboxylic acids capable of forming a metal salt with metal contained in the fine metal particles.

As for Claim 15, the cited reference fails to provide any suggestion as to the specific choice of the one or more carboxylic acids forming the covering layer such that "said one or more

carboxylic acids is selected from the group of consisting of long chain carboxylic acids having 8 or more carbon atoms in the form of linear carboxylic acid, which carbon atoms are chosen in the range of 18 carbon atoms or less".

The cited reference also fails to provide any suggestion as to the specific choice of the thickness of the covering layer formed with the adjusted covering amount such that "a thickness of the covering layer formed with the adjusted covering amount is at least 0.5 nm or thicker, and selected in the range of 2/10 to 8/10 of the average particle size of the fine metal particles".

In addition, the cited reference teaches just a fine metal particle dispersion comprising fine metal particles that is coated with one or more compounds having a group containing a nitrogen atom, an oxygen atom or a sulfur atom, and thus the cited reference teaches just fine metal particles being dispersed in the organic solvent, which is considered to be fine metal particles in the wet form. Accordingly, the cited reference fails to provide any suggestion as to such fine metal oxide particles in the form of a dry powder,

One of the distinctive features of the invention of the fine mental particles as claimed in currently amended Claims 1, 2 and 15 is such a feature that the claimed fine mental particles is just "fine metal particles in the form of a dry powder" in which "a thickness of the covering layer formed with the adjusted covering amount is at least 0.5 nm or thicker, and selected in the range of 2/10 to 8/10 of the average particle size of the fine metal particles".

Thus, the cited reference teaches just fine metal particles in wet form being dispersed in a dispersion solvent, in which a thickness of the covering layer is by no means adjusted to such a well-adjusted thickness. Accordingly, such distinctive features of the invention of the fine mental particles as claimed in currently amended Claims 1, 2 and 15 are by no means obvious over the cited reference. Applicants respectfully request withdrawal of the rejection.

Application No.: 10/595,440
Filing Date: April 19, 2006

CONCLUSION

In the light of the applicant's amendments to the claims and the following Remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

No Disclaimers or Disavowals

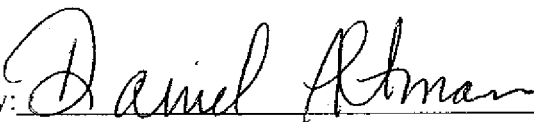
Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: November 24, 2008

By: 

Daniel E. Altman
Registration No. 34,115
Attorney of Record
Customer No. 20995
(949) 760-0404

6253516_1
112408